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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
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| 10/069,126 | 07/24/2002 | · Alain Goux | P22010 | 3526 | |
| 7055 | 7590 12/12/2005 | | EXAMINER | | |
| GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE | | | SALVATORE, LYNDA | | |
| RESTON, V | | | ART UNIT PAPER NUMBER | | |
| · | | | 1771 | | |
| | | | DATE MAILED: 12/12/2005 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
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| | 10/069,126 | GOUX ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Lynda M. Salvatore | 1771 | <u>. </u> | | | |
| The MAILING DATE of this communication app Period for Reply | pears on the cover sheet with the o | correspondence add | dress | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a, cause the application to become ABANDONE | N. nely filed the mailing date of this co D (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1)⊠ Responsive to communication(s) filed on 30 S | September 2005. | | | | | |
| | s action is non-final. | | | | | |
| 3) Since this application is in condition for allowated closed in accordance with the practice under to the condition of t | , | | merits is | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) 15-38 is/are pending in the application 4a) Of the above claim(s) 34-38 is/are withdraw 5) Claim(s) 31-33 is/are allowed. 6) Claim(s) 15-30 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or control of the application o | wn from consideration. | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examine | | | | | | |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the | | | TD 4 404(4) | | | |
| Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex | , | - | , , | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list | ts have been received. ts have been received in Application trity documents have been receive u (PCT Rule 17.2(a)). | on No ed in this National S | Stage | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) | 4) 🔲 Interview Summary | | | | | |
| Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | Paper No(s)/Mail D. 5) Notice of Informal F 6) Other: | | P-152) | | | |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and accompanying remarks filed 9/30/05 have been fully considered and entered. Claims 31 and 33 have been amended into independent form.

Applicant's arguments regarding the obviousness rejections of claims 15-30 are found persuasive, however, upon further consideration a new ground of rejection is set forth herein below.

Response to Arguments

Claim Rejections - 35 USC § 103

- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 3. Claims 15-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riedel et al., US 5,631,073 in view of Young et al., Us 4,833,179.

The patent issued to Riedel et al., teach a non-woven sheet and pressure sensitive adhesive tapes formed therefrom (Abstract). With regard to the felt or needle-bonded limitation, Riedel et al., teach forming a non-woven by physical entanglement or needling (Column 6, 57-62). With regard to the adhesive layer limitation, Riedel et al., teach coating a layer of pressure sensitive adhesive onto the non-woven sheet (Column 9, 22-25). With regard to the rolling and winding limitations, Riedel et al., teach that the non-woven sheet material may be conveyed directly to an adhesive coater, followed by slitting into individual tape rolls. With regard to the limitation of coating the opposite side of the non-woven support with an anti-varnish, Riedel et al., teach the use of a releasable liner that covers the adhesive layer or a release coating, such as a

low adhesion backsize, coated on the non-adhesive side of the tape to facilitate the winding of the tape into rolls (Column 10, 46-53). With regard to the support thickness limitation, Riedel et al., teach a thickness ranging from .04mm to about .5mm in thickness (Column 6, 31-35). With regard to the surface mass limitations, Riedel et al., teach a weight ranging from 10 g/m² to about 100 g/m² (Column 6,35-41). With regard to the calendaring limitations, Riedel et al., teach pattern embossing or flat calendaring the non-woven sheet (Column 23, 5-25). With regard to the fiber material limitations, Riedel et al., teach a non-woven structure formed form a variety of materials such as polyester staple fibers (Column 5, 8-23). In addition, Riedel et al., also teach employing polyester, polyethylene, polypropylene or polybutylene binder fibers in an amount ranging from 5-50% (Column 5,50-Column 6, 30). With regard to the ratio of polyester to viscose fibers, Riedel et al., teach in various examples illustrating the use of a fiber mixture consisting of 50% PET (polyethylene terephthalate), 30% rayon (viscose), and 20% diawa (binder fibers) (Column 15, table 3).

With regard to the limitation pertaining to the immersion depth of the fibers in the adhesive, Riedel et al., does not specifically teach the degree of adhesive penetration, but does incorporate by reference the Young et al., patent for examples of suitable adhesives and application methods (Riedel et al., column 9, 23-33). Specifically, Young et al., teach applying the adhesive by roller coating, dip coating or extrusion coating (Young et al., column 5, 25-35). According to Applicant's specification, the adhesive is applied by direct coating and the degree of penetration is a function of the adhesive viscosity. Since Applicant has failed to set forth the adhesive composition and only dependently claims the viscosity, it is the position of the

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Examiner that the coating methods taught by Young et al., would result in the claimed immersion depth once the adhesive is coating onto the substrate.

Therefore, motivated by the desire to provide a pressure sensitive adhesive article with suitable adhesiveness it would have been obvious to one having ordinary skill in the art to apply the adhesive to the non-woven substrate of Riedel et al., by any one of the coating methods taught by Young et al.

With regard to the physical property limitations of tearing effort, tearing resistance, modulus at elongation, unrolling effort and elongation break, the combination of prior art fails to explicitly teach these features, however, it is the position of the Examiner that said limitations are inherent to the adhesive tape provided by Riedel et al., in view of Young et al. Support for said presumption is found in the use of like materials (i.e., a non-woven substrate comprising rayon, polyester, PET and pressure sensitive adhesive) and the use of like processes such as roller, dip or extrusion coating, which would result in the claimed tearing effort, tearing resistance, modulus at elongation, unrolling effort and elongation break properties. Applicant is invited to evidence otherwise.

3. Claims 15-30 are stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer et al., US 5,916,393 in view of Riedel et al., US 5,631,073.

The patent issued to Shaffer et al., teach a method of penetrating a porous substrate with pressure sensitive adhesive (Abstract, column 1, 54-60 and column 5, 8-32). Suitable porous substrates include non-woven products (column 7, 31-35). Shaffer et al., teach extruding the adhesive onto the substrate and then subjecting the adhesive to an impingement method such that

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the adhesive penetrates the substrate ranging in distance between .1mm to .13mm (column 1, 65-column 2, 5 and column 5, 31-33).

With regard to claim 29, Shaffer et al., teach a viscosity of ranging from 5,000-80,000 cP (column 3, 55-60). Shaffer et al., specifically teach that the disclosed impingement method improves the bond between the adhesive and the porous substrate (column 4, 45-56).

Shaffer et al., fails to teach the claimed non-woven support features, however, the patent issued to Riedel et al., teach a non-woven sheet and pressure sensitive adhesive tapes formed therefrom (Abstract). With regard to the felt or needle-bonded limitation, Riedel et al., teach forming a non-woven by physical entanglement or needling (Column 6, 57-62). With regard to the adhesive layer limitation, Riedel teach coating a layer of pressure sensitive adhesive onto the non-woven sheet (Column 9, 22-25). With regard to the rolling and winding limitations, Riedel et al., teach that the non-woven sheet material may be conveyed directly to an adhesive coater, followed by slitting into individual tape rolls. With regard to the limitation of coating the opposite side of the non-woven support with an anti-varnish, Riedel et al., teach the use of a releasable liner that covers the adhesive layer or a release coating, such as a low adhesion backsize, coated on the non-adhesive side of the tape to facilitate the winding of the tape into rolls (Column 10, 46-53). With regard to the support thickness limitation, Riedel et al., teach a thickness ranging from .04mm to about .5mm in thickness (Column 6, 31-35). With regard to the surface mass limitations, Riedel et al., teach a weight ranging from 10 g/m² to about 100 g/m² (Column 6,35-41). With regard to the calendaring limitations, Riedel et al., teach pattern embossing or flat calendaring the non-woven sheet (Column 23, 5-25). With regard to the fiber material limitations, Riedel et al., teach a non-woven structure formed form a variety of materials Art Unit: 1771

such as polyester staple fibers (Column 5, 8-23). In addition, Riedel et al., also teach employing polyester, polyethylene, polypropylene or polybutylene binder fibers in amount ranging from 5-50% (Column 5,50-Column 6, 30). With regard to the ratio of polyester to viscose fibers, Riedel et al., teach in various examples illustrating the use of a fiber mixture consisting of 50% PET (polyethylene terephthalate), 30% rayon (viscose), and 20% diawa (binder fibers) (Column 15, table 3).

Therefore, motivated by the desire to improve the bond strength between the adhesive and the porous non-woven substrate, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the high viscosity pressure sensitive adhesive using the method taught by Shaffer et al., to the non-woven substrate taught by Riedel et al. Specification motivation to employ the substrate of Riedel et al., is found in the desire to provide a pressure sensitive non-woven tape product.

With regard to the physical property limitations of tearing effort, tearing resistance, modulus at elongation, unrolling effort and elongation break, the combination of prior art fails to explicitly teach these features, however, it is the position of the Examiner that said limitations are inherent to the adhesive tape provided by Shaffer et al., in view of Riedel et al., Support for said presumption is found in the use of like materials (i.e., a non-woven substrate and pressure sensitive adhesive) and the use of like processes such as impinging a pressure sensitive adhesive into the non-woven substrate, which would result in the claimed tearing effort, tearing resistance, modulus at elongation, unrolling effort and elongation break properties. Applicant is invited to evidence otherwise.

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4. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riedel et al., US 5,631,073 in view of Young et al., Us 4,833,179 as applied to claim 15 above and further in view of Shaffer et al., US 5,916,393.

The combination of Riedel et al., and Young et al., do not teach the claimed viscosity of the pressure sensitive adhesive, however, the patent issued to Shaffer et al., teach applying pressure sensitive adhesive to porous non-woven substrates (Abstract, column 1, 54-60 and column 5, 8-32). Shaffer et al., teach a viscosity of ranging from 5,000-80,000 cP (column 3, 55-60). Specifically, Shaffer et al., teach employing high viscosity adhesives to provide resistance to creep (gradual flow) in the final product at higher temperatures (column 3, 55-60).

Therefore, motivated by the desire to provide resistance to creep (gradual flow) in the final product at higher temperatures, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the adhesive tape taught by the combination of Riedel et al., in view of Young et al., with the higher viscosity pressure sensitive adhesive taught by Shaffer et al.

Allowable Subject Matter

5. As previously set forth claims 31-33 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claims 31 and 33 such that they are now in independent form. Presently, the prior art does not teach further applying a polyethylene or polyester based powder to the adhesive face. An updated art search produced the closest prior art of Nelson et al., US 5,232,838 which teaches coating a substrate

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with a water based adhesive and a dusting layer of a cold water soluble powder (Abstract).

Nelson et al., however, fails to teach a polyethylene or polyester based powder. Presently, no motivation exists to combine references to form an obviousness type rejection. Thus, claims 31-33 are found allowable.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 7, 2005